

Abstract of the Disclosure

[0056] The present invention overcomes all of the aforementioned problems by defining two upstream masks (U1, U2) and two downstream masks (D1, D2) and using a mask selectable system for the long reach digital subscriber line (LDSL), in which a unique modem feature is activated during handshake to automatically check for physical layer status in terms of spectral compatibility and, thus, automatically optimize the boosted mode with the use of the mask selectable system choose the best combination of upstream/downstream masks in any physical layer noise scenario.